

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Eric Sean Parham, et al.
Serial No.: 09/685,274
Filing Date: October 9, 2000
Confirmation No.: 4448
Group Art Unit: 2662
Examiner: Dmitry Levitan
Title: SYSTEM AND METHOD FOR INTERFACING
BETWEEN SIGNALING PROTOCOLS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

REPLY BRIEF

In response to the Examiner's Answer dated November 15, 2006, Applicant respectfully submits this substitute appeal brief.

REAL PARTY IN INTEREST

The present application was assigned to General Bandwidth Inc., a Delaware corporation, as indicated by an assignment from the inventors recorded on February 21, 2001 in the Assignment Records of the United States Patent and Trademark Office at Reel 011554, Frames 0611-0616.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-20 stand rejected pursuant to a an Office Action mailed August 9, 2005. Claims 1-20 are all presented for appeal.

STATUS OF AMENDMENTS

A Response to Examiner's Final Action was filed on February 28, 2005 in response to the Final Action mailed December 29, 2004. No amendments were made to the claims. The Examiner issued an Advisory Action dated March 25, 2005 which stated that the Response to Examiner's Final Action was entered and considered but that it did not place the application in condition for allowance. A Notice of Appeal was filed on April 29, 2005. An Appeal Brief was filed on June 29, 2005. The Examiner issued an Office Action on August 9, 2005 citing new grounds of rejection. Applicant submitted a Request for Reinstatement of the Appeal and a Supplemental Appeal Brief in support thereof on November 9, 2005. The Examiner issued a Notification of Non-Compliant Appeal Brief on July 20, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

With respect to Independent Claims 1 and 14, the present invention involves a telecommunications network (10) having a gateway (18) that receives signaling information in a media gateway and call session control format from a Class 5 Softswitch (26). (See FIGURE 1 and page 6, lines 22-28). The gateway (18) converts the media gateway and call session control format to a broadband loop emulation service signaling protocol for transfer to integrated access devices (20) at a customer premises (22) through a broadband loop emulation services network (14). (See FIGURE 1 and page 6, lines 28-32). The gateway is operable to provide tone generation and detection capabilities pursuant to the signaling information. (See FIGURE 1 and page 7, lines 1-11).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Did the Examiner err in concluding that Claims 1-20 were indefinite for failing to particularly point out and distinctly claim the subject matter of the invention under 35 U.S.C. §112, second paragraph?

2. Did the Examiner err in concluding that Claims 1-20 were obvious under 35 U.S.C. §103(a) over U. S. Patent No. 6,603,760 issued to Smyk in view of the DSL Forum TR-036 Technical Report?

ARGUMENT

1. Claims 1-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner has indicated that the terms Class 5 softswitch, signaling information in a media gateway and call session control format to a Class 5 softswitch, and network signaling format to a Class 5 softswitch are not defined in the specification nor well known in the art. Applicant respectfully traverses this rejection.

With respect to the term "Class 5 softswitch", it is clearly known by those skilled in the art. The article entitled "TalkingNets to Implement telecom technologies' Flexible Softswitch Technology Within its Next-Generation Network" and bearing a date of June 6, 2000. The article specifically refers to a softswitch that provides Class 5 functionality. Thus, a Class 5 softswitch was well known to those skilled at the time of filing of the present Application.

With respect to the term "signaling information in a media gateway and call session control format to a Class 5 softswitch", specific examples of media gateway and call session control formats are defined at page 6, lines 11-14, of Applicant's specification. Moreover, the article entitled "TalkingNets to Implement telecom technologies' Flexible Softswitch Technology Within its Next-Generation Network" identified above specifically mentions media gateway devices in relation to a Class 5 softswitch. Thus, the term is well defined and those of skill in the art were familiar with the term "signaling information in a media gateway and call session control format to a Class 5 softswitch" at the time of filing of the present Application.

With respect to the term "network signaling format to a Class 5 softswitch", specific examples of a network signaling format, such as SS7, are defined at page 6, lines 17-22, of Applicant's specification. Moreover, the article entitled "TalkingNets to Implement telecom technologies' Flexible Softswitch Technology Within its Next-Generation Network" identified above specifically states that a softswitch can support SS7 and traditional telephony interfaces. Thus, the term is well defined and those of skill in the art were familiar with the term "network signaling format to a Class 5 softswitch" at the time of filing of the present Application.

According to the discussion above, all of the terms identified by the Examiner were fully known to those skilled in the art at the time of filing of the present Application and appropriately defined in Applicant's specification. Pursuant to M.P.E.P. §2171, the question is whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art. Thus, the Examiner's subjective lack of knowledge in the art is not sufficient by itself to support the indefiniteness rejection raised by the Examiner. As shown above, one of skill in the art is very familiar with the language used in the claims. Therefore, Applicant respectfully submits that Claims 1-20 are in accordance with 35 U.S.C. §112, second paragraph.

The Examiner indicates in the Examiner's Answer that the evidence showing the existence of a Class 5 softswitch is insufficient to define a Class 5 softswitch. However, the Examiner's objection to the claim term 'Class 5 softswitch' is that it is not defined in the specification nor well known in the art. Applicant has presented the TalkingNets article to show that the term 'Class 5 softswitch' was well known to those of skill in the art at the time of the invention and

thus rebutting the Examiner's unsubstantiated assertion that such a term was not known to those of skill in the art at that time. Therefore, the Examiner's assertion that the claim term 'Class 5 softswitch' is not well known to those of skill in the art is clearly misplaced.

The Examiner also indicates in the Examiner's Answer that the claim term 'Class 5 softswitch' is not sufficiently defined in Applicant's specification. Applicant has pointed out that the specification clearly defines a Class 5 softswitch. See page 2, lines 6-11, of Applicant's specification. Apparently, the Examiner wants a full blown tutorial on the operation of a Class 5 softswitch. However, Applicant is not seeking a patent on a Class 5 softswitch. The claimed invention includes claims directed to a system and method for interfacing between signaling protocols where a Class 5 softswitch is involved as part of the system. Since a Class 5 softswitch is well known to those of skill in the art, its detailed implementation is not necessary for the understanding of the claimed invention. Therefore, the Examiner's assertion that the claim term 'Class 5 softswitch' is not sufficiently defined in the specification lacks merit in relation to the scope of the claims.

2. Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Smyk in view of DSL Forum TR-036 Technical Report. According to M.P.E.P. §2143, to establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all the claim limitations. The Examiner has not established that any criteria for a prima facie case of obviousness has been met in this instance.

First, there is no suggestion or motivation in the Smyk patent to modify it with the broadband loop emulation service of the DSL Forum TR-036 Technical report as proposed by the Examiner. The Examiner has not cited any language within the Smyk patent that would suggest any capability for the Smyk patent to provide broadband loop emulation service. The DSL Forum TR-036 Technical Report merely mentions the existence of the broadband loop emulation service. The Examiner has not provided any basis that these two documents can be linked in any manner let alone for the purpose of rejecting the claimed invention. No objective reasoning whatsoever was provided by the Examiner for modifying the Smyk patent with the broadband loop emulation service mentioned by the DSL Forum TR-036 Technical Report as has been proposed other than through an improper hindsight reconstruction of the claimed invention. The Examiner has merely provided subjective conclusory "it would have been obvious to combine" statements using improper hindsight reconstruction without any support for such conclusory statements from the Smyk patent, the DSL Forum TR-036 Technical Report, or anywhere else in the prior art. A statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary

skill of the art at the time the claimed invention was made because the references relied upon teaches that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. See M.P.E.P. 2143.01. Since the Examiner has not provided any proper reasoning, let alone objective reasoning, the burden to establish the first criteria of a prima facie case of obviousness has not been met.

Second, a reasonable expectation of success has not been shown by the Examiner. The Examiner, without the improper hindsight look through the claimed invention, has not addressed how the proposed modification to the Smyk patent would have any success whatsoever let alone a reasonable expectation of success. The Examiner has not provided any basis at all showing that the broadband loop emulation service mentioned in the DSL Forum TR-036 Technical Report is compatible with the network architecture of the Smyk patent. Moreover, there has been no showing that the broadband loop emulation service of the DSL Forum TR-036 Technical Report was known at the time of the invention of the Smyk patent let alone can be incorporated into the architecture provided by the Smyk patent. Therefore, Applicant respectfully submits that the Examiner has failed to establish the second criteria for a prima facie case of obviousness.

Third, the Examiner has not shown that the proposed Smyk - DSL Forum TR-036 combination teaches or suggests all of the claim limitations. Certain individual claims are highlighted below to show how the proposed Smyk - DSL Forum TR-036 combination lacks disclosure for teaching all of the claim limitations.

Independent Claim 1

With respect to Independent Claim 1, there is recited ". . . a gateway operable to receive signaling information in a media gateway and call session control format, the gateway operable to convert the media gateway and call session control format to a broadband loop emulation service signaling protocol, the gateway operable to provide tone generation and detection capabilities pursuant to the signaling information." By contrast, the Smyk patent does not disclose a gateway that converts a media gateway and call session format to a broadband loop emulation service signaling protocol while also providing tone generation and detection as required by the claimed invention. The Smyk patent has no disclosure with respect to a broadband loop emulation service signaling protocol. Thus, the Smyk patent is not capable of performing the media gateway and call session format conversion to broadband loop emulation service as provided in the claimed invention. Moreover, the DSL Forum TR-036 Technical Report also does not disclose a gateway that converts a media gateway and call session format to a broadband loop emulation service signaling protocol. The DSL Forum TR-036 Technical Report has no disclosure with respect to a media gateway and call session format. The structure that would result from placing the broadband loop emulation service of the DSL Forum TR-036 Technical Report into the network architecture of the Smyk patent would still lack an ability to convert a media gateway and call session format to a broadband loop emulation service signaling protocol while also providing tone generation and detection as required by the claimed invention.

Additionally, Claims 3 and 9-11 recite a Class 5 softswitch. As pointed out by the Examiner, the Smyk patent clearly uses a Class 5 switch as opposed to the claimed Class

5 softswitch. The Class 5 switch of the Smyk patent cannot perform the function of converting the network signaling format to the media gateway and call session control format let alone providing and receiving the media gateway and call session control format as performed by the Class 5 softswitch provided in Claims 3 and 9-11. The portions of the Smyk patent cited by the Examiner merely show a media gateway control protocol between its service manager and its network gateway and not between its network gateway and its Class 5 switch. In addition, the DSL Forum TR-036 Technical Report is also based on the use of a Class 5 switch with no mention of any Class 5 softswitch capability. Moreover, as discussed above, the Examiner is not even aware of the existence of a Class 5 softswitch or that it is known by those of skill in the art. As a result, the Examiner is unable to comprehend the differences between a conventional Class 5 switch and a Class 5 softswitch and the different interfacing required to provide communications with a Class 5 softswitch as compared to a conventional Class 5 switch as shown in the claimed invention.

Independent Claim 14

With respect to Independent Claim 14, there is recited a task of ". . . converting the media gateway and call session control format to a broadband loop emulation service signaling protocol; providing tone generation and detection in response to the signaling information and instructions received from the Class 5 softswitch." By contrast, the Smyk patent does not disclose a gateway that converts a media gateway and call session format to a broadband loop emulation service signaling protocol while also providing tone generation and detection as required by the claimed invention. The Smyk patent has no disclosure with respect to a broadband loop emulation service signaling protocol. Thus, the Smyk patent is not capable of performing the media gateway and call session format conversion to broadband loop emulation service as provided in the claimed invention. Moreover, the DSL Forum TR-036 Technical Report also does not disclose a gateway that converts a media gateway and call session format to a broadband loop emulation service signaling protocol. The DSL Forum TR-036 Technical Report has no disclosure with respect to a media gateway and call session format. The structure that would result from placing the broadband loop emulation service of the DSL Forum TR-036 Technical Report into the network architecture of the Smyk patent would still lack an ability to convert a media gateway and call session format to a broadband loop emulation service signaling protocol while also providing tone generation and detection as required by the claimed invention.

Additionally, Claim 14 requires receiving signaling information in a media gateway and call session control format from a Class 5 softswitch. As discussed earlier, the Smyk patent and the DSL Forum TR-036 Technical Report clearly use a

Class 5 switch as opposed to the claimed Class 5 softswitch. The Class 5 switch of the Smyk patent and the DSL Forum TR-036 Technical Report have no capability to provide signaling information in a media gateway and call session control format as required by the Class 5 softswitch of Claim 14. The portions of the Smyk patent cited by the Examiner merely show a media gateway control protocol between its service manager and its network gateway and not between its network gateway and its Class 5 switch.

Based on the reasoning above, the Smyk patent and the DSL Forum TR-036 technical Report are insufficient by themselves to support a rejection of the claims. Therefore, Applicant respectfully submits that the Examiner has failed to establish the third criteria for a prima facie case of obviousness.

The three criteria necessary to establish a prima facie case of obviousness as spelled out in M.P.E.P. §2143 have not been mentioned by the Examiner let alone discussed in any detail. As shown above, the improper combination of the references, the lack of any expectation of success for the proposed combination, and the lack of disclosure in the references for each and every limitation, clearly show that the Examiner has failed to properly support the rejections of the claims. Therefore, Applicant respectfully submits that Claims 1-20 are patentably distinct from the proposed Smyk - DSL Forum TR-036 combination.

The Examiner indicates in the Examiner's Answer that Applicant improperly attacked the references individually. Applicant merely showed deficiencies of the references that their combination also lacks to support the rejection of the claims. The Examiner readily admits that the Smyk patent fails to disclose the broadband loop emulation service

signaling protocol and merely cites the DSL Forum TR-036 Technical Report because it happens to mention the broadband loop emulation service signaling protocol. However, even if the broadband loop emulation service signaling protocol were incorporated into the system of the Smyk patent, the Examiner has yet to show how all of the features of the claims mentioned above are provided in the proposed combination. There is no disclosure in the cited references of a Class 5 softswitch nor of the conversion between different formats as required by the claimed invention. Applicant has shown above that the use of the Smyk patent and the DSL Forum TR-036 Technical Report cannot satisfy any of the criteria for a prima facie case of obviousness. Therefore, the Examiner has failed to properly show that the cited references are sufficient to support the asserted rejections of the claims.

CONCLUSION

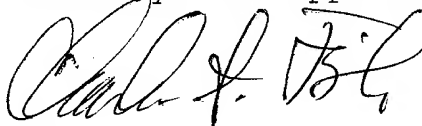
Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over all the art cited of record, either alone or in combination, and satisfies all requirements under 35 U.S.C. §§101, 102, and 103, and 112. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.

Attorneys for Applicant

A handwritten signature in black ink, appearing to read "Charles S. Fish", written over a horizontal line.

Charles S. Fish

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January 16, 2007

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APPENDIX A

1. (Original) A system for interfacing between signaling protocols, comprising:

a gateway operable to receive signaling information in a media gateway and call session control format, the gateway operable to convert the media gateway and call session control format to a broadband loop emulation service signaling protocol, the gateway operable to provide tone generation and detection capabilities pursuant to the signaling information.

2. (Original) The system of Claim 1, wherein the gateway is operable to receive signaling information in the broadband loop emulation service signaling protocol, the gateway being operable to convert the broadband loop emulation service signaling protocol to the media gateway and call session control format.

3. (Original) The system of Claim 2, wherein the gateway is operable to provide the signaling information in the media gateway and call session control format to a Class 5 softswitch.

4. (Original) The system of Claim 1, wherein the media gateway and call session control format follows a SGCP standard.

5. (Original) The system of Claim 1, wherein the media gateway and call session control format follows a MGCP standard.

6. (Original) The system of Claim 1, wherein the media gateway and call session control format follows a H.248 standard.

7. (Original) The system of Claim 1, wherein the media gateway and call session control format follows a SIP standard.

8. (Original) The system of Claim 1, wherein the media gateway and call session control format follows a H.323 standard.

9. (Original) The system of Claim 1, further comprising:
a Class 5 softswitch operable to receive signaling information in a network signaling format, the Class 5 softswitch operable to convert the network signaling format to the media gateway and call session control format, the Class 5 softswitch operable to control incoming call requests from a network through the gateway according to the signaling information.

10. (Original) The system of Claim 9, wherein the network signaling format is a SS7 signaling format.

11. (Original) The system of Claim 9, wherein the gateway is operable to provide signaling information to the Class 5 softswitch in the media gateway and call session control format, the Class 5 softswitch operable to convert the media gateway and call session control format to the network signaling format.

12. (Original) The system of Claim 1, wherein the broadband loop emulation services signaling protocol implements a channel associated signaling format.

13. (Original) The system of Claim 1, wherein the broadband loop emulation services signaling protocol implements a common channel signaling standard.

14. (Original) A method for interfacing between signaling protocols, comprising:

receiving signaling information in a media gateway and call session control format from a Class 5 softswitch;

converting the media gateway and call session control format to a broadband loop emulation service signaling protocol;

providing tone generation and detection in response to the signaling information and instructions received from the Class 5 softswitch.

15. (Original) The method of Claim 14, wherein the media gateway and call session control format follows a MGCP standard.

16. (Original) The method of Claim 14, wherein the media gateway and call session control format follows a H.248 standard.

17. (Original) The method of Claim 14, wherein the media gateway and call session control format follows a SIP standard.

18. (Original) The method of Claim 14, further comprising:

providing the broadband loop emulation service signaling protocol to an integrated access device at a customer premises.

19. (Original) The method of Claim 14, wherein the broadband loop emulation services signaling protocol implements a channel associated signaling format.

20. (Original) The method of Claim 14, wherein the broadband loop emulation services signaling protocol implements a common channel signaling standard.

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PATENT APPLICATION
09/685,274

19

EVIDENCE APPENDIX

None

ATTORNEY DOCKET NO.
066303.0169

PATENT APPLICATION
09/685,274

20

RELATED PROCEEDINGS APPENDIX

None

ATTORNEY DOCKET NO.
066303.0169

PATENT APPLICATION
09/685,274

21

CERTIFICATE OF SERVICE

None